

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L3	75	((PQQ\$ or pyrrolo\$) near3 dehydrogenase)	USPAT; EPO; JPO; DERWEN T	2002/01/13 15:29
2	BRS	L4	8	3 and (phthal\$ or mal\$ or succin\$)	USPAT; EPO; JPO; DERWEN T	2002/01/13 15:32

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	BRS	L6	21	(sens\$ or biosens\$ or detect\$ or measur\$) and electrode\$ and (PQQ\$ or pyrrlo\$) and glucon\$	USPAT; EPO; JPO; DERWEN T	2002/01/13 14:12
2	BRS	L7	2	(glucose near1 dehydrogenase) and (glucon\$ near5 (stabiliz\$ or additive))	USPAT; EPO; JPO; DERWEN T	2002/01/13 14:15
3	BRS	L8	815	(glucose dehydrogenase).ti.	USPAT	2002/01/13 14:20
4	BRS	L9	9	(glucose near1 dehydrogenase).ti.	USPAT	2002/01/13 14:24
5	BRS	L10	19	(glucose near1 dehydrogenase).ti. or (glucose near1 dehydrogenase).ab.	USPAT	2002/01/13 14:24
6	BRS	L11	4	10 and (gluconic or gluconate)	USPAT; EPO; JPO; DERWEN T	2002/01/13 14:25

=> d his full

(FILE 'HOME' ENTERED AT 13:50:39 ON 13 JAN 2002)

FILE 'CAPLUS' ENTERED AT 13:51:04 ON 13 JAN 2002

L1 212 SEA ((GLUCOSE DEHYDROGENASE) AND (GLUCON?))/AB
L2 10 SEA L1 AND (STABIL?)/AB
D 1-10 ALL

=> d his full

(FILE 'HOME' ENTERED AT 12:58:26 ON 13 JAN 2002)

FILE 'REGISTRY' ENTERED AT 12:58:42 ON 13 JAN 2002

L1 2 SEA GLUCONIC ACID/CN
D ALL

FILE 'CAPLUS' ENTERED AT 12:59:44 ON 13 JAN 2002

L2 126 SEA (SENSOR OR BIOSENSOR OR DETECT?) AND ELECTRODE? AND
(GLUCON?)

L3 35 SEA L2 AND (PQQ? OR PYRROLO? OR DEHYDROGENASE)
D 1-35 ALL

FILE 'STNGUIDE' ENTERED AT 13:02:36 ON 13 JAN 2002

L4 0 SEA (SENS? OR MEASUR?) AND ELECTRODE? AND (GLUCON?)

FILE 'CAPLUS' ENTERED AT 13:12:45 ON 13 JAN 2002

L5 191 SEA (SENS? OR MEASUR?) AND ELECTRODE? AND (GLUCON?)

L6 32 SEA L5 AND (PQQ? OR PYRROLO? OR DEHYDROGENASE)
D 10 ALL

L7 4 SEA L6 NOT L3
D 1-4 ALL

FILE 'STNGUIDE' ENTERED AT 13:13:32 ON 13 JAN 2002

L3 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2002 ACS

RN 526-95-4 REGISTRY

CN D-Gluconic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Gluconic acid, D- (8CI)

OTHER NAMES:

CN **Gluconic acid**

AR 133-42-6

FS STEREOSEARCH

MF C6 H12 O7

CI COM

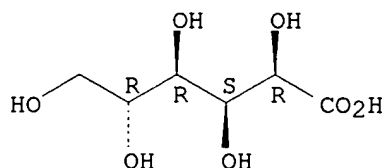
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DIOGENES, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



Calculated Properties (CALC)

CODE	PROPERTY	VALUE	CONDITION	NOTE
HD	H donors	6		ACD (1)
HAC	H acceptors	7		ACD (1)
MW	Molecular Weight	196.16		ACD (1)
LOGP	logP	-3.175+/-0.852		ACD (1)
LOGD	logD	-3.18	pH 1	ACD (1)
LOGD	logD	-3.91	pH 4	ACD (1)
LOGD	logD	-6.69	pH 7	ACD (1)
LOGD	logD	-7.17	pH 8	ACD (1)
LOGD	logD	-7.27	pH 10	ACD (1)
PKA	pKa	3.35+/-0.35	Most Acidic	ACD (1)
SLB.MOL	Molar Solubility	>=1 mol/L	pH 1	ACD (1)
SLB.MOL	Molar Solubility	>=1 mol/L	pH 4	ACD (1)
SLB.MOL	Molar Solubility	>=1 mol/L	pH 7	ACD (1)
SLB.MOL	Molar Solubility	>=1 mol/L	pH 8	ACD (1)
SLB.MOL	Molar Solubility	>=1 mol/L	pH 10	ACD (1)

(1) Calculated using Advanced Chemistry Development (ACD) Software Solaris V4.67 ((C) 1994-2002 ACD)

4012 REFERENCES IN FILE CA (1967 TO DATE)

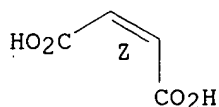
546 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

4023 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
 RN 110-16-7 REGISTRY
 CN 2-Butenedioic acid (2Z)- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2-Butenedioic acid (Z)-
 CN **Maleic acid (8CI)**
 OTHER NAMES:
 CN 2-Butenedioic acid, (Z)-
 CN cis-1,2-Ethylenedicarboxylic acid
 CN cis-2-Butenedioic acid
 CN cis-Butenedioic acid
 CN Maleinic acid
 CN Malezid CM
 CN Scotchbond Multipurpose Etchant
 CN Toxilic acid
 FS STEREOSEARCH
 MF C4 H4 O4
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
 CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
 DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2,
 GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*,
 MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO,
 TOXCENTER, TULSA, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9345 REFERENCES IN FILE CA (1967 TO DATE)
 2696 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 9365 REFERENCES IN FILE CAPLUS (1967 TO DATE)
 5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

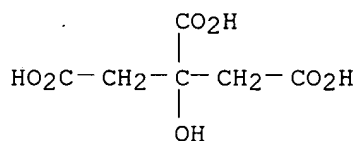
L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
 RN 110-15-6 REGISTRY
 CN Butanedioic acid (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Succinic acid (8CI)
 OTHER NAMES:
 CN 1,2-Ethanedicarboxylic acid
 CN 1,4-Butanedioic acid
 CN A 12084
 CN Amber acid
 CN Asuccin
 CN Dihydrofumaric acid
 CN Katasuccin
 CN Wormwood acid
 FS 3D CONCORD
 MF C4 H6 O4
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
 CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSChem, DDFU, DETHERM*, DIOGENES,
 DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2,
 GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDb, IPA, MEDLINE, MRCK*,
 MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO,
 SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

HO₂C-CH₂-CH₂-CO₂H

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17334 REFERENCES IN FILE CA (1967 TO DATE)
 1954 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 17363 REFERENCES IN FILE CAPLUS (1967 TO DATE)
 9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
 RN 77-92-9 REGISTRY
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Citric acid (8CI)
 OTHER NAMES:
 CN 2-Hydroxy-1,2,3-propanetricarboxylic acid
 CN 3-Carboxy-3-hydroxypentane-1,5-dioic acid
 CN Aciletten
 CN Chemfill
 CN Citretten
 CN Citro
 CN F 0001 (polycarboxylic acid)
 CN Hydrocerol A
 CN Uro-trainer
 FS 3D CONCORD
 DR 12262-73-6, 43136-35-2, 245654-34-6
 MF C6 H8 O7
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
 CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
 DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT,
 ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA,
 MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHARMASEARCH,
 PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USAN,
 USPAT2, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

36859 REFERENCES IN FILE CA (1967 TO DATE)
 2437 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 36945 REFERENCES IN FILE CAPLUS (1967 TO DATE)
 9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)